

Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1-32. (Cancelled)

33. (New) A device for use in surgical procedures involving arthroplasty, the device comprising:

a socket member comprising:

a first surface adapted to receive a counter component of a joint, and

a bone engaging surface comprising:

a first surface portion that extends away from a circumferential join with the first surface; and

a second surface portion that extends away from a the first surface portion to an extremity;

wherein the first surface portion is configured such that a cross-sectional diameter of the first surface portion decreases at a first rate as the first surface portion extends away from the circumferential join with the first surface, and the second surface portion is configured such that a cross-sectional diameter of the second surface portion decreases at a second rate, the second rate being different from the first rate, and

wherein the first surface portion and the second surface portion are arranged relative to each other such that the bone engaging surface is devoid of a step or an edge at a meeting loci of the first surface portion and the second surface portion.

34. (New) The device of claim 33, wherein the bone engaging surface being devoid of a step or a corner prevents the application of undue stress to the surrounding bone.

35. (New) The device of claim 33, when used as a replacement for the acetabular component of a hip joint.

36. (New) The device of claim 33, wherein the first rate of decrease in cross-sectional diameter of the socket member is linear.

37. (New) The device of claim 33, wherein the second rate of decrease in cross-sectional diameter of the socket member is logarithmic or exponential.

38. (New) The device of claim 33, wherein the second rate of decrease in cross-sectional diameter of the socket member varies as the second surface portion extends away from a line of meeting with the first surface portion and the second surface portion.

39. (New) The device of claim 33, wherein the first surface portion is defined by a frustoconical section of the socket member and the second surface portion is defined by a spherical section of the socket member.

40. (New) The device of claim 39, wherein the frusto-conical section of the socket member is oriented so that its smallest cross-sectional diameter meets, circumferentially, with a hemisphere formed by the spherical section and its largest cross-sectional diameter meets, circumferentially, with the first surface of the socket member.

41. (New) The device of claim 33, wherein the socket member is cotyloidal in configuration with a longitudinal axis.

42. (New) The device of claim 33, wherein the first surface of the socket member comprises a relatively planar surface into which the bearing surface forms an indent.

43. (New) The device of claim 33 wherein the socket member is made from any one of the group comprising metals, ceramics, or carbon fibre.

44. (New) The device of claim 33, wherein the bearing surface of the socket member is made from a material of higher wear resistance relative the remaining material of the socket member.

45. (New) The device of claim 44, wherein the bearing surface is made from polyethylene or a ceramic material.

46. (New) The device of claim 33, wherein a shell of polyethylene having a shape which corresponds with the bearing surface is fitted to the bearing surface.

47. (New) The device of claim 46, wherein an interface formed between the bearing surface of the socket member and the shell is surface-coated with titanium nitrate or titanium carbide.

48. (New) A device for use in surgical procedures involving arthroplasty, the device comprising:

- a bone engaging member configured to be secured to a bone with at least one bone securing means;

- a bearing member configured to be at least partially received within a recess of the bone engaging member; and

- a liner configured to be positioned at least partially between the bearing member and the bone engaging member to substantially cover the at least one bone securing means of the bone engaging member.

- wherein the bone securing member comprises:

- a liner engaging surface; and

- a bone engaging surface, comprising:

- a first surface portion that extends away from a circumferential join with the liner engaging surface; and

- a second surface portion that extends away from a the first surface portion to an extremity;

- wherein the first surface portion is configured such that a cross-sectional diameter of the first surface portion decreases at a first rate as the first surface portion extends away from the circumferential join with the first surface, and the second surface portion is configured such that a cross-sectional diameter of the second surface portion decreases at a second rate, the second rate being different from the first rate, and

- wherein the first surface portion and the second surface portion are arranged relative to each other such that the bone engaging surface is devoid of a step or an edge at a meeting loci of the first surface portion and the second surface portion.

49. (New) The device of claim 48, wherein the bearing member has a first surface configured to receive a counter component of a joint and a second surface that is configured to be engageable with the liner.

50. (New) The device of claim 49, wherein the first surface of the bearing member comprises a relatively planar surface into which is formed an indent configured to receive a ball portion of a joint.

51. (New) The device of claim 49, wherein the second surface of the bearing member forms a circumferential join with the first surface and extends away from the circumferential join to define a substantially hemispherical or frustoconical portion.

52. (New) The device of claim 48, wherein the bone engaging member has a relatively planar surface into which is formed the recess, the recess defined by the liner engaging surface, the planar surface forming a rim around the recess.

53. (New) The device of claim 48, wherein the at least one bone securing means of the bone engaging member comprises at least one screw hole to receive a screw for securing the bone engaging member to the bone of a patient.

54. (New) The device of claim 53, wherein the liner substantially conforms with the contour of the liner engaging surface of the bone engaging member and covers the at least one screw hole of the bone engaging member.

55. (New) The device of claim 54, wherein at least a portion of the liner extends beyond the liner engaging surface of the bone engaging member.

56. (New) The device of claim 55, wherein said portion of the liner that extends beyond the liner engaging surface comprises a lip member that engages the rim of the bone engaging member.

57. (New) The device of claim 53, wherein when the device is in use, the liner prevents the migration of wear debris to the bone via the at least one screw hole of the bone engaging member

58. (New) The device of claim 57, wherein when the device is in position within a patient, the liner also reduces relative movement between the bearing member and the bone engaging member thereby reducing the amount of wear debris produced as a result of said relative movement.

59. (New) The device of claim 48, wherein the liner is made from a biocompatible material including titanium.

60. (New) The device of claim 48, wherein the bearing member is made from a polyethylene or ceramic material.

61. (New) The device of claim 48, wherein the bone engaging member is made from a metal or plastics material.

62. (New) The device of claim 48, wherein the liner has a thickness of less than 1 mm.

63. (New) The device of claim 62, wherein the liner has a diameter of less than 0.5 mm.